Performance Measure Profile

System Risk Event Rate (SRER)

FY 2013 Methodology Report

Federal Aviation Administration

Performance Measure Applicability	
☐ **DOT Strategic Plan** Goal: n/a Outcome: n/a Metric: n/a	☒ **Destination 2025** Goal: Move to the Next Level of Safety Outcome: Aviation risk is reduced through all phases of flight (gate-to-gate). Metric: Reduce risks in flight by limiting the rate of the most serious losses of standard separation to 20 or fewer for every thousand (.02) losses of standard separation within the National Airspace System.
☐ **Agency Priority Goal**	

FY 2013 Performance Target

Limit the rate of the most serious losses of standard separation to 20 or fewer for every thousand (.02) losses of standard separation within the National Airspace System.

Lead Organization: Air Traffic Organization (ATO)

	FY 2009	FY 2010	FY 2011[1]	FY 2012	FY 2013
Target	N/A	N/A	20.00	20.00	20.00
Actual	N/A	N/A	24.54	9.33	TBD

Definition of Metric

Metric Unit:	All instances of violation of a prescribed radar separation standards, termed loss of standard separation. *Loss of Standard Separation (LoSS):* The violation of a prescribed radar separation standard, as defined in FAA Order 7110.65 or other national directive, for an operation under ATO services, including a pilot deviation, which results in less than the applicable separation minima between two or more airborne aircraft. *Loss of Standard Separation (most serious):* All validated losses of standard separation events with 66 percent or less of standard separation are categorized as Risk Analysis Events (RAE) and examined by a panel consisting of bargaining unit representatives, pilots, and other experts using a disciplined and exhaustive Risk Analysis Process. Criteria used to determine those RAEs that constitute a serious LoSS event include: proximity, closure rate, repeatability and severity. *System Risk Event Rate (SRER):* The loss of standard separation data will be used to compute the SRER, which is the rate of the most serious losses, for every thousand losses of standard separation within the

[1] This was a new target for FY 2011. No prior year results are available.

	system.
Computation:	Rolling 12-month rate of serious losses of standard separation per thousand losses of standard separation.
Formula:	∑(Serious Loss of Standard Separation)/(Total Loss of Standard Separation)*1,000
Scope of Metric:	This metric will measure the separation performance of radar controlled aircraft flying under Instrument Flight Rules.
Method of Setting Target:	The initial target of 20 was set based on a projection of SRER from legacy data (Operational Incidents and Pilot Deviations). The target of 20 has been set for FY 2011 through FY 2014 to establish a baseline while deploying improved analysis and loss of standard separation detection equipment. It will set a minimum level of system performance that should be attainable while continuing an improving trend over historical performance.

Why the FAA and/or DOT Choose this Metric

The ATO ensures that aircraft flying within the National Airspace System maintain required separation. With this new metric, FAA will be able to:

- Align our approach to safety with our international partners,
- Integrate pilot and controller performance data on all air traffic incidents,
- Evaluate separation incidents caused by other factors, including pilot deviations,
- Avoid under-reporting and misclassification of incidents, and
- Facilitate the safe transition to NextGen.

Public Benefit

Targeting the resources of the ATO to mitigate the most serious hazards in the NAS results in a focused increase in safety. A similar safety enhancement approach process in commercial aviation produced a dramatic decrease in the accident rate during the first part of the 21st century.

Partners

FAA's Air Traffic Organization (ATO) and other lines of business as necessary to mitigate losses of standard separation.

External Factors Affecting Performance

None

Source of the Data

Source data for the SRER will be obtained through the reporting of loss of standard separation in accordance with the FAA orders or other national directives. Source data will be collected directly via the Comprehensive Electronic Data Analysis and Reporting (CEDAR) System and the Traffic Analysis and Review Program (TARP) from all the FAA's air traffic control facilities. ATO Safety and Technical Training will be responsible for assuring the accuracy of this data and for maintaining records.

Statistical Issues

The data are not subjective and all identified loss of standard separation events will be included in the SRER.

Completeness

The data are typically not finalized for 90 days following the close of the fiscal year. The FAA has implemented procedures and equipment to identify report and validate all losses of separation, thereby removing the majority of the subjectivity and/or ability to filter the results.

Reliability

FAA uses performance data and information collected through a defined, repeatable risk analysis process for program management, personnel evaluation, and accountability in prioritizing its facility audits and assessments. The FAA verifies and validates the accuracy of the data through the initial validation process followed by quality assurance and quality control reviews. Reconciliation of the databases is conducted monthly and anomalies are explored and resolved. In cases where major problems are identified, a request

to re-submit is issued. The FAA conducts annual reviews of reported data and compares them with data reported from previous years.